

ABSTRACT OF THE DISCLOSURE

A four color liquid crystal display (LCD) including red, green, blue, and white pixels is provided. The LCD also includes a plurality of gate lines for transmitting gate signals to the pixels and a plurality of data lines for transmitting data signals to the pixels. The LCD further includes a gate driver supplying the gate signals to the gate lines, a data driver supplying the data voltages to the data lines, and an image signal modifier. The image signal modifier includes a data converter converting three-color image signals into four-color image signals, a data optimizer optimizing the four-color image signals from the data converter, a data output unit supplying the optimized image signals to the data driver in synchronization with a clock, and a clock generator generating the clock. The data driver operates in synchronization with the clock.